

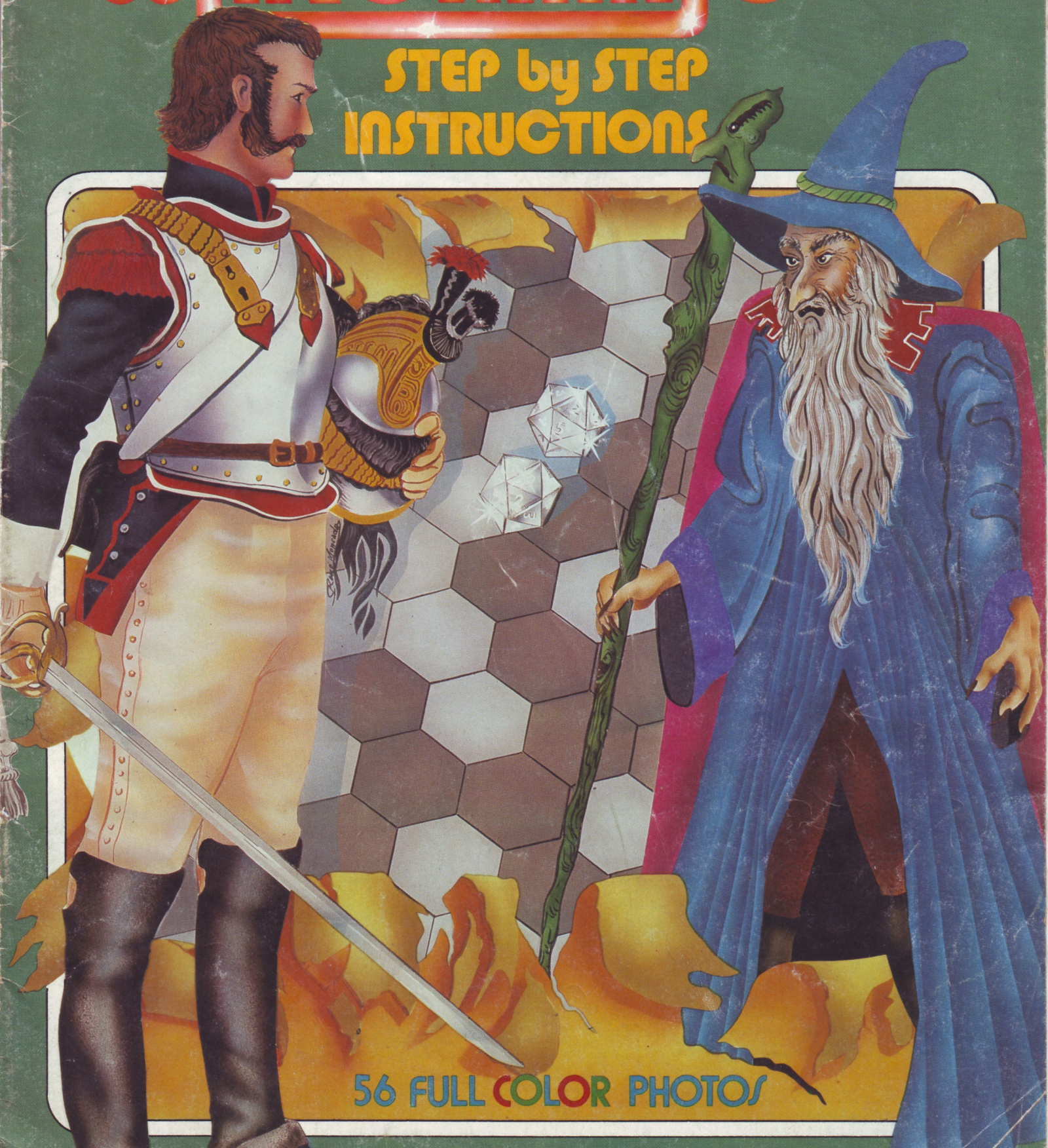
How to get started in:

HPH 4



# WARGAMING

STEP by STEP  
INSTRUCTIONS



56 FULL COLOR PHOTOS



# About the Author

Robert Schleicher has been a model building enthusiast for almost as long as he can remember. A child of six when World War II ended, the event had enough impact on him that he still remembers machines like Sherman tanks and Lockheed P38 "Lightning" fighter planes as childhood toys. Those machines were the subjects of some of his early kit-building attempts with the wooden models that were the mainstay of the hobby in those days. His interest in castle-sieging and medieval warfare kept him close to the development of early "paper" adventure games. He began a career as a writer in the hobby and leisure time field in 1963 with articles on model cars. He has since authored hundreds of articles on all types of models as well as motorcycles, racing cars, and snowmobiles. He has also served as editor for more than a dozen magazines dealing with those same subjects and has authored numerous hobby books. Though Bob grew up in Wyoming and lived many years in Southern California, he now lives in Colorado.

Cover illustration by Rene Moncada.

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## Introduction

Terms such as "strategy", "tactics", "scheme", "out-flank", "out-maneuver", and "intrigue" are common to both a football locker room and a chess tournament. Those concepts are also what wargaming is all about.

Toy soldiers existed before man was recording history; board games like chess are almost as ancient. It's the nature of man to try to out-guess his fellows. The games of mental skill called "war games" are designed to provide just that kind of satisfying competition. But don't let the word "war" mislead you. It's the "game" that's most important in this hobby. Winning is fun, but even losing is satisfying when you know it was an uncontrollable element that beat you rather than any mistakes of your own. Modern "war games" are designed so "pleasant defeat" is possible; the "loser" can be proud if having "hung on" for the duration of the game just as the "winner" is proud of victory.

Today's war games are simulations of a historical event, of an event which might occur in the future, or a situation of pure fantasy. The categories of "Adventure Games", "Fantasy Games" and many "Adult Games" often include "War Games" like those in this book.

We appreciate the photographic use of products by manufacturers acknowledged here:

T=Top; C=Center; B=Bottom;  
L=Left; R=Right

- Page 3: TL—Atlantic and Hinchcliff (Heritage) figures  
TR—Heritage "Fantastiques" figures
- Page 4: L—Britain's 54mm Confederate soldiers
- Page 5: T—McEwan 25mm fantasy figures  
BL—Heritage "Fantastiques" on Avalon Hill's "Magic Realm" gameboards  
BR—Britain's 54mm Confederate soldiers
- Page 6: L—ConCor (Heljan) farmhouse with Mini-Figs 25mm Napoleonic Era figures  
R—Heritage "Fantastiques" figures and Gamescience dice
- Page 7: L—GHQ tanks on Avalon Hill's "Panzer Blitz"  
R—Heritage "Confederates"
- Page 8: L&BR—Mini-Figs 25mm Napoleonic Era figures, painted by Mike Gilbert  
TR—Atlantic and Hinchcliff (Heritage) figures
- Page 9: TL—Atlantic and Hinchcliff (Heritage) figures  
CL—(left) Heritage "Confederates"; (right) Britain's figures  
BL—GHQ tanks on Avalon Hill's "Panzer Blitz"  
TR—Britain's plastic tree kit  
CR&BR—Britain's figures

- Page 10: TL—Lustrom's "Panzer Force"  
CL—Metagaming  
BL—Avalon Hill  
TR—GHQ tank on Simulations Publication, Inc. (SPI) gameboard  
CR—Atlantic and Airfix figures on SPI gameboard  
BR—Mini-Figs figures on Gamescience gameboard
- Page 11: TL—ConCor (Heljan) farmhouse with Mini-Figs figures  
BL—Heritage "Confederates"  
TR—Gamescience "Starfleet" plastic ships on SPI gameboard  
CR—Gamescience manual and figures  
BR—Heritage "Fantastiques" figures on Avalon Hill's "Magic Realm" gameboard
- Page 12: TL—Heritage "Fantastiques" figures  
CL—Heritage "Fantastiques" figures on SPI's "Swords and Sorcery"
- Page 13: BL,TR&CR—Atlantic and Airfix  
TL—GHQ tanks  
CL,BL,TR,CR&BR—Atlantic and Airfix
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CL—Atlantic and Airfix  
TR&BR—GHQ tanks  
CR—Mini-Figs' Napoleonic figures
- Page 15: TL—GHQ tanks  
BL,TR,CR—Atlantic and Airfix  
BR—McEwan miniatures
- Back Cover: Britain's 54mm "Confederate" figures and plastic tree



## Role Playing

The concept of "role playing" is basic to almost every war game. In role playing you do your best to become the character(s) who would make decisions or moves in the game. War games are designed so you can easily assume the role of general for either force. The facts and figures needed to make a general's decisions are printed on easy-to-read cards, brief charts and the playing pieces themselves. The "world" your game involves is represented by the game board. It bears simple, obvious markings indicating any terrain features that would affect a general's decisions.

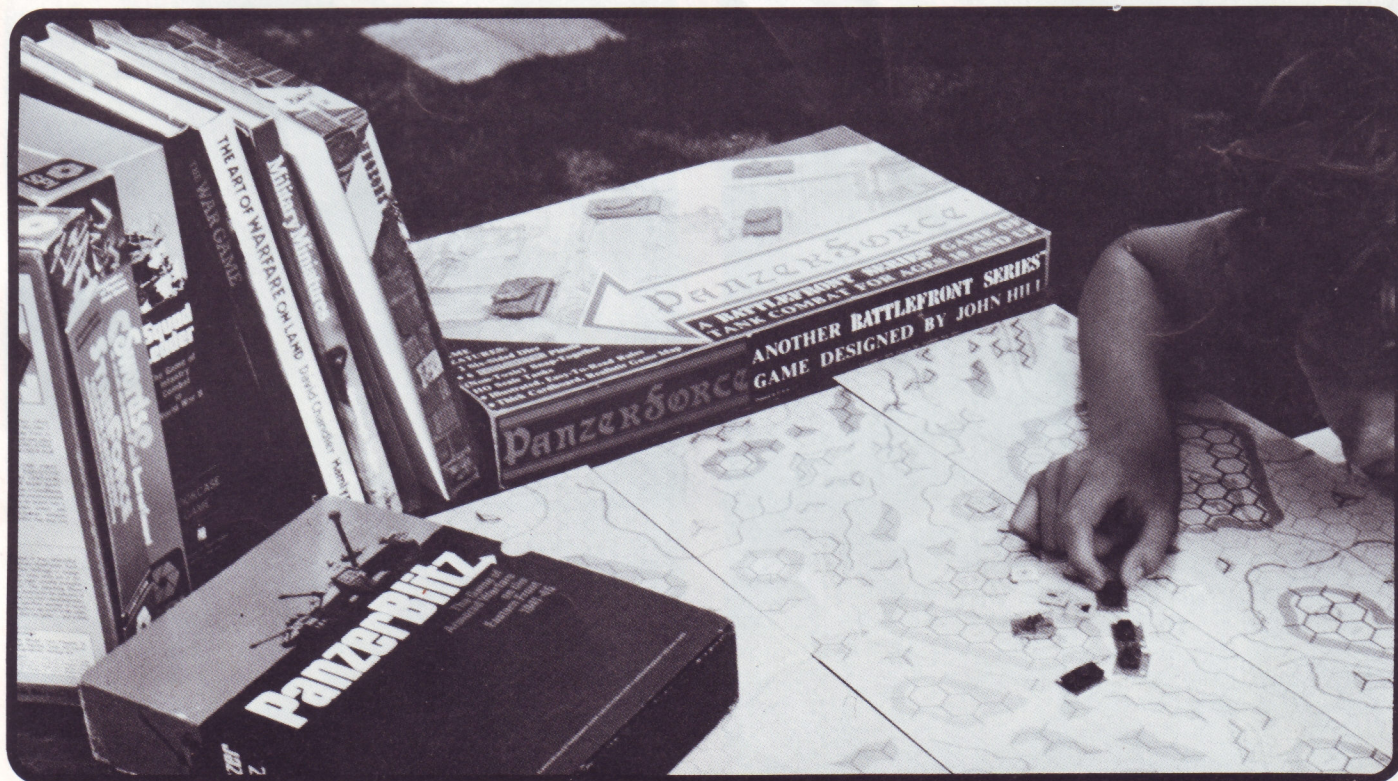


With the addition of lifelike miniatures, intricately painted and detailed, and background effects like plastic grass, war games take on a realistic sense of adventure and excitement.

Hobbyists in other fields sometimes try for historical simulations, but that's not close to the thrill of role playing in war games. War games seem so realistic, the **players** become totally involved. Don't attempt to judge the realism of wargaming by simply looking at this book or an actual game. You must **play** the game to understand how realistic it is.

## Paper Games

Some games are played with only simple notes and pieces of paper, without a game board or playing pieces. One such pure-imagination "paper" game deals with fantasy characters like magicians, elves, dragons and witches. Many of these characters have the power to move through walls; some of the action takes place in the total darkness of underground caverns. In some games, even the concept of time can be manipulated to bring battles into the future or past! A wide array of "paper" games is available, ranging from "ancient history" battles to futuristic games of science fiction and fantasy.





## Board Games

The most popular war games are designed to be played on cardboard "boards" with squares or hexes determining movement. Here the terrain is visible to players, and may be anything from an ancient castle to a map of a distant universe. Early board games and some beginner games have the terrain marked in squares, so movement is similar to that of checkers. Most war games use a board that is laid out in hexes (6-sided figures), allowing players to simulate actual battle movements more closely than is possible with squares. The hex is close to a full circle, so nearly 360-degrees of movement is possible.



Recently there has been a trend to combine "toy soldiers" with "board" and "paper" games, resulting in added realism that makes it a bit easier to devote one's mental energies to the role playing needed to enjoy the hobby. Some 3-dimensional games on the market today include sets of plastic soldiers or 15mm-high cast metal figures. The metal miniatures field is so extensive it offers almost any metal playing piece from an "ancient" Briton to a World War II tank to imaginable—and "unimaginable"—fantasy figures.

## Scale

"Scale" plays an extremely important part in war games as you are simulating an entire imaginary "universe" where both space and time are factors. Model builders use the term "scale" to define the proportions of miniatures compared to the real thing. HO-scale, the most popular model railroad scale, is 1/87 of a real train, track, etc. Scale proportions used in wargaming are not usually as precise, since you're dealing with images meant only to help your imagination work more effectively. The "scale" of the miniature figures or other game pieces is most noticeable in a war game. It is defined by modelers as the **average** height of the miniature in millimeters. (The proportional fraction is seldom used for scale in wargaming). The most popular war game figures are about 25mm high (or 1/48 scale, the size of O-scale model trains), measured from base of the standing figure to its eyes.

The number of men and vehicles is also reduced to a constant scale, as it would be impossible to deal with thousands of men and vehicles as in a real battle. The wargamer selects an arbitrary (his choice) "scale" for each playing piece, for example, 1 piece representing 1000 men, 1 tank representing 20 tanks. Some fantasy and naval games are played with one playing piece actually representing one man or machine. These one man/one piece games represent what wargamers call the "tactical level". Tactical level games use small units (like platoons) in battle and lend themselves effectively to the use of 3-dimensional playing pieces.



"Strategic level" games involve thousands of troops; each playing piece might represent 100 or more men. "Operational level" games duplicate battles that span countries or entire continents, so it's seldom practical to use 3-dimensional figures. When the level, or scale, of a game becomes so large that the effects of individual weapons is no longer important, it's best to use only simple cardboard playing pieces.





## Time

The concept of time must also be reduced on even the largest and most complex war games. Each player's "move" or "turn" is thus reduced in scale, making it possible to complete several months of battles in several hours. The time span of some games is infinite, an "endless" search for adventure as with most fantasy games. Other games may take months to complete, although a typical war game can be played in one evening. "Tactical level" games reduce time to as little as an hour, so you can follow the turns of an individual battle, and the effects of individual weapons in that battle. If the game is played on a "strategic level", each turn may represent as little as one day or week. If the game is of the "operational level", each player's turn is usually scaled to represent one month.



## Chance

The element of chance is part of any war game. Some type of dice, and tables involving results of each roll of the dice, are used in most war games to duplicate the "luck" factor of the real world. Game designers often go to extreme lengths to determine the psychology of each battle commander, the effects of morale, how certain units fared in hand-to-hand combat, etc. These factors are all included in the "results tables" for battles, determined by a roll of the dice. Players can build insurmountable odds in their favor, but that's seldom the way either a war game or a real battle is won.





## "One on None"

Most war games are designed to be played by just one person. The variables of history, terrain, time and chance are "built in" so you can never be absolutely sure of the outcome. When playing alone, you simply set up both forces in the best possible positions for attack and/or defense, then take each opponent's moves in turn. Obviously, this is not possible with games requiring 3 or more players, like some "paper" games. You can obtain almost as much enjoyment playing most "board" games solo as you can playing against an opponent. Practice will certainly give you the improved skills needed for a wiser attack or defense when playing against someone else. In choosing a game that can be played equally well solo or against an opponent, you will probably be most pleased with a board game in the "operational level". When playing alone, it seems more realistic to battle with entire armies or countries than to tax one's imagination for role playing in the often hand-to-hand simulations of the "tactical level".



## HISTORY

War games appeared as early as the late 1800s and were basically models of current or recent history, where gaming enthusiasts of the time could back up boasts that they "could have done it better!" than the real military commanders of the time. Today's war games include examples from several periods in history, up to a "Third World War" and beyond to intergalactic battles of the future.

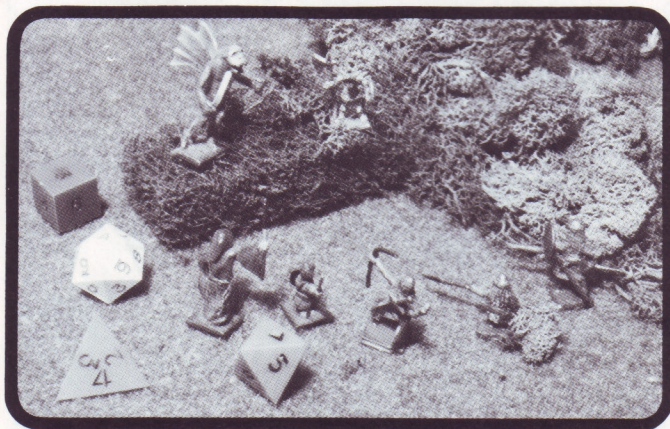
The type of war game most often associated with budding generals was pioneered by the Prussians in the early 1800s. Today, such a game would be played on computers. Those computer model games, now played in war rooms like the

Pentagon, are far too complex for a "hobby" game. Even real-life war games are now played on boards marked with hexes, using cardboard counters, more often than with computers. (Similar "games" are used to train real-life commanders & fighter pilots).

In the late 1800s Mr. R.L. Stevenson published the rules & formats for hobby war games like those played today, but wargaming didn't come of age until 1913, when H.G. Wells published his book *Little Wars*. Wells had created the famous *War of the Worlds* & other early science fiction, and obviously understood the concepts of imagination and role-playing that are fundamental to war games. He based his game concepts on the use of metal miniature soldiers, which has been a part of the hobby ever since.

The use of playing boards for war games goes back to the 1930s when the first regular board games were introduced. The first "board" style war game was introduced in 1953. The first wargaming magazine appeared in 1966, featuring wargaming news, history articles and a complete war game in each issue. It was so successful the games were later issued in box form.

The board was literally pulled out from under wargamers when the first highly popular "paper" (boardless) fantasy games were introduced in the early 1970s. These games are modernized versions of the game H.G. Wells described in *Little Wars*, although they are a "breakthrough" in allowing players to use their imaginations and notes alone. A gaming board would have to be 3-dimensional to fully cover the scope of those "paper" fantasy game rules. More recently, wargaming has come full circle and wargamers are playing these "paper" games with miniature lead soldiers. Fantasy war games, both "board" and "paper" types, are currently the most popular forms of wargaming and are the most popular metal miniature figures as well.



## METAL MEN & FELT FIELDS

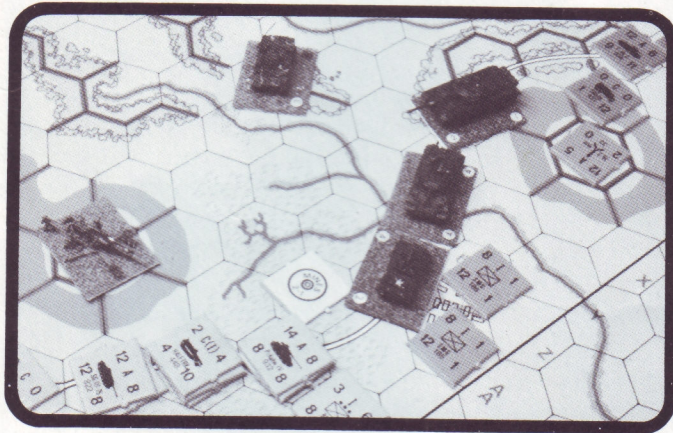
The key element in enjoying any war game is imagination. The games do everything possible to develop your imagination of the battle and, through role playing, the position of your forces in that battle. The cardboard playing pieces carry some



*Continued from page 6.*

type of symbol to aid you in imagining what each force really looks like on the move. Game boards are colorful representations of the terrain your forces move through and over to reach a goal. Still, it's all done in just 2 dimensions; most "paper" war games don't even provide that much incentive to your imagination. You must conjure up your own ideas of the characters and terrain. It's too easy for most of us to get involved with numbers and strategies and forget what the characters and terrain are meant to be.

The two hobbies of wargaming and military miniatures have always complimented one another. The original lead "toy soldiers" helped start the hobby back in the early 20th Century. More recently the interest developed by dozens of new war games, particularly fantasy games, has inspired thousands of new miniature figures in both metal and plastic. You can generally buy the best military miniatures in the same place you can buy the best war games. Some war games include 3-dimensional plastic or metal miniatures as playing pieces. In most cases, though, you must buy the miniatures separately if you want to use them instead of the cardboard playing pieces provided, or to replace numbers and notes on paper in the "paper" games.



There are hundreds of war games and thousands of military miniatures on the market today. If you search a bit, you'll be able to find all the figures you need to represent the forces in almost any war game. If the era you want is popular, you may even discover a choice of 15mm, 22mm, 25mm, and 54mm-high figures. Armored fighting vehicles are available in plastic kits in scale sizes to match any of these troops. There are also several brands of cast metal armored vehicles and spaceships designed especially for wargaming. To bring a fantasy game into 3-dimensional reality, there are dozens of magicians, dragons, trolls, elves, and witches available in cast metal.

It's sometimes difficult to fit miniature figures and weapons into the hexes of board games. There are 2 solutions to the problem: find smaller-size figures, or duplicate the game board using larger hexes. Three or four 15mm figures can be glued to a plastic hex or rectangle a bit smaller than the game board hexes. The 1/285-scale (and smaller) tanks and armored fighting vehicles are also small enough to fit onto similar-size pieces of cardboard or plastic. You can write the numbers applying to each piece's attack, defense, movement or size on the bottom of the piece, or write them on small paper circles on each corner of the piece.

The squares or hexes you use for bases must be small enough that you can see a little of the terrain under the piece. Use the same "scale" for armored vehicles that you used for your troops, so a single tank might represent an entire battalion of tanks, 3 or 4 soldiers might represent a squadron. Don't change the unit size the cardboard playing piece suggests, or you'll defeat the playing ability of the game. The purpose of the 3-dimensional figures is to make it easier to imagine what both warring forces really look like.



Many wargamers aren't satisfied with just 3-dimensional playing pieces; they also want the terrain to be more than a colorful map. If you're an experienced wargamer, you can devise your own 3-dimensional terrain to replace the game board itself. Use a ruler to measure the allowable movement and range of any of the weapons, rather than going by a certain number of hexes. The remaining rules of the board game can be used as they are for the 3-dimensional terrain. You'll find helpful advice in the many war game books carried in hobby shops, book stores, and libraries, or you may find one of the "paper" games dealing with the same battles or era as your original "board" game.

To assemble your own 3-dimensional wargaming terrain, follow these basic tips:

1. Green felt serves well as the battlefield used in most conventional battles. If you are wargaming in an intergalactic or fantasy setting, you may wish to substitute black imitation velvet (velour), to give the game a feeling of "infinite" dimension.
2. Hobby shops selling model railroad equipment will carry trees & colored lichen moss that can simulate foliage. Some fine 1/32-scale plastic tree kits are available that work well with 54mm-high figures.
3. Use real pebbles for rocks.
4. Scraps of 2x4 lumber can be placed beneath the felt to simulate hills.
5. It's best to cut roads from brown felt, rivers or lakes from blue felt, so you can change their locations if you wish. These same features can just be marked with large felt-tip pens if you're certain you'll want them in the same locations in every future game. With 3-dimensional terrain features you can actually look at the "line of sight" (LOS) factors that are a part of war games, by placing your eye level at terrain level.



# TACTICS

Certain fundamental moves or maneuvers are wargaming's basic methods of attack and defense, regardless of the historical time period of the war game. Unfortunately, few war games discuss this aspect of the hobby. We can show you some basic maneuvers, and if you find they help your game, we suggest you do some research into the history of warfare at your local library. If you are wargaming in a historical battle, the actual tactics used by the commanders may work against your opponent. The same basic tactics that worked for Napoleon worked for Patton, and they'll work for intergalactic and "otherworld" battles as well.

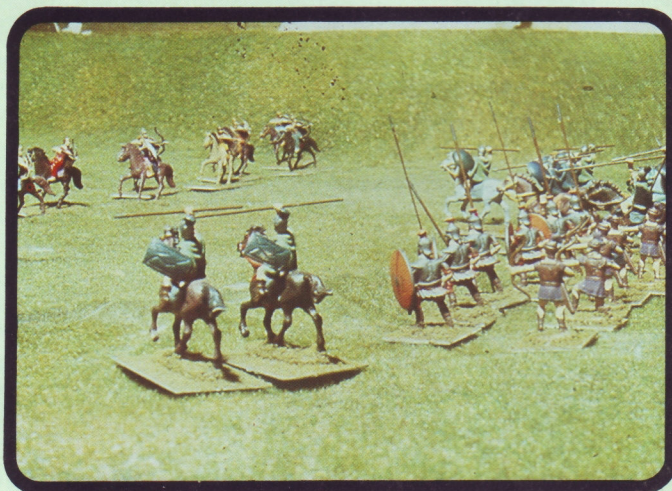
## Superior Forces

The most obvious battle tactic is often overlooked by new wargamers. It's possible to "play the odds" in any war game and win, even when the strength of your attack force equals that of the defending force. Experienced wargamers never initiate an attack until the odds are at least 3:1 in their favor. There are battles with lower odds, but they take place due to some accidental or surprise encounter. Most games are designed so 3:1 odds always benefit the attacking force; that's the **easiest** way to win! You can find 3:1 or better odds by either maneuvering your forces to "build" them, or by finding a weak point in your opponent's defenses. There is often one "key" force in an opponent's group; if you can identify that force, concentrate enough of your own forces on it to make the odds **greater** than 3:1 in your favor.

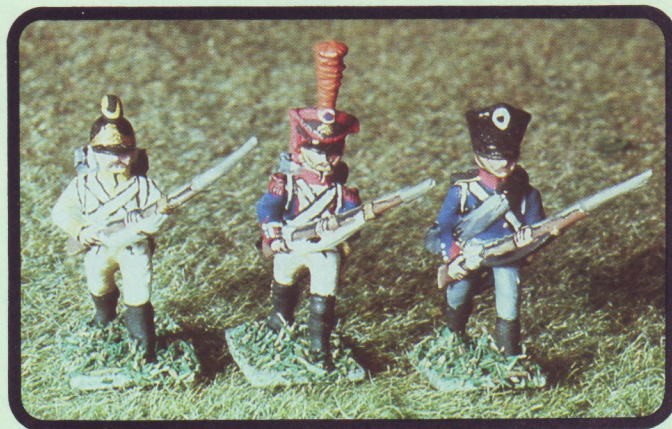


## Defensive Tactics

Defensive tactics can be learned the same way most wargamers learn assault tactics, by losing badly to someone who knows the most effective basic maneuvers. However, there are fundamental principles of defense you can use to minimize your losses during that learning period. Study the game board and your opponent's moves, and you will usually have enough warning of an attack that you can maneuver your forces into the best possible position. You may find yourself in the defending position in the opening turn of the game, or you may simply know from the first turn that your opponent must attack to gain the terrain you hold. The first basic strategy of defense is to plan your **assault** moves so your forces will end up in a safe defending position. In other words, plan your assault so it ends up in a "perfect" defense.



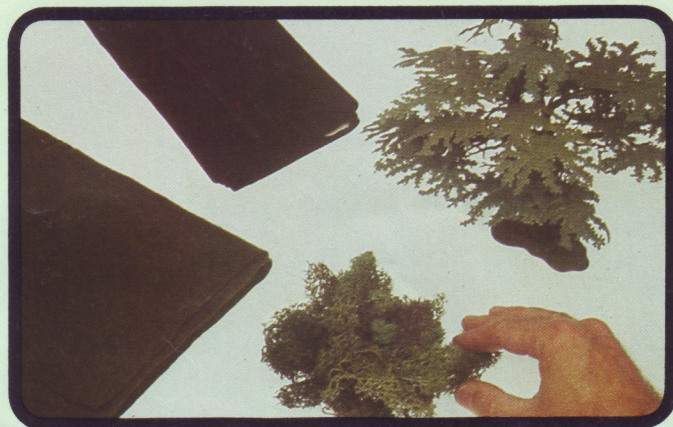
The second basic defense strategy is to establish those defense positions with the least possible chance for your opponent to gain a numerical "attack" advantage. This may be as simple as positioning your forces between two "inaccessible" areas of terrain, so the flanks (sides) of your forces are completely protected. The fundamental idea is to make only your **strongest** forces accessible to your opponent, using those forces to protect your weaker or "key" forces. The rules of war games vary so much that it isn't possible to give specific defense positions that will be effective for every game. In general, plan your defense so you hold the terrain and forces that are "key" to winning the game for as many turns as possible, even if your opponent is successful in all his attacks.







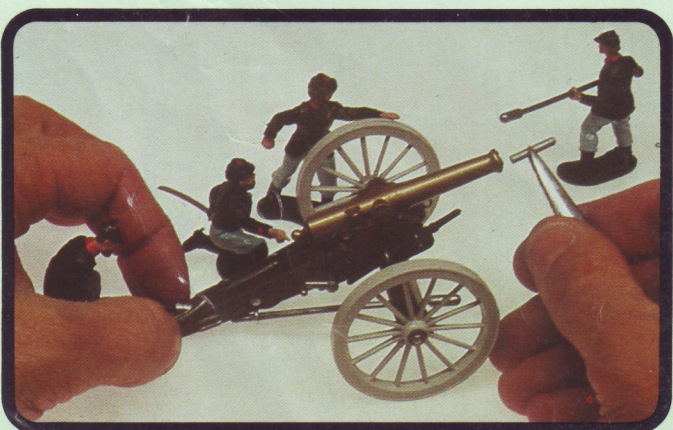
Rocky Russo, a war game designer, modified and painted these plastic or metal figures, for use in "ancient history" war games based on actual battles of 2000 years ago. Mounted troops represent Turks & Bulgars attacking Byzantine "psiloi" (foot soldiers with bows), mounted "Scutatos" (far left, right and center) and mounted Thematic lancers. Roman, Trojan and Greek figures were painted to represent the various troops.



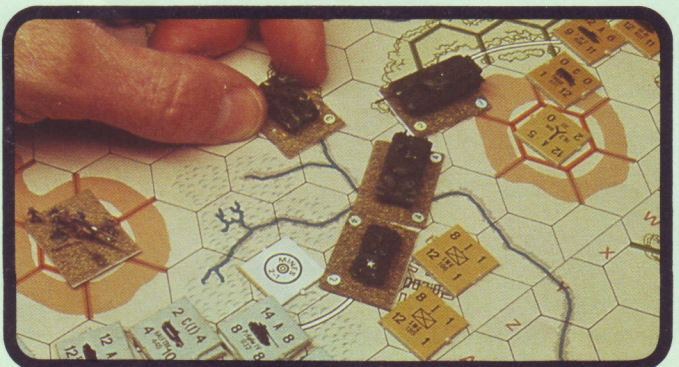
You can make your own playing field for "paper" games using green felt for the ground, model railroad lichen moss for the bushes and plastic trees. Black velvet works well for fantasy games.



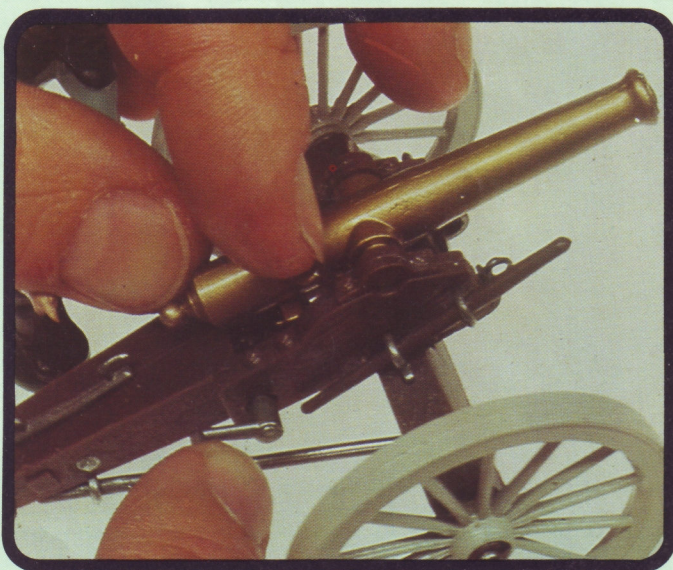
Today, 15mm figures (left) are more popular with serious wargamers than the larger 54mm figures. The modeler must paint the 15mm figures, whereas the larger figures are sold fully painted.



Cannons that actually shoot are part of the style of wargaming popular since 1913. A series of cannons is available that fires plastic shells with a coil spring.

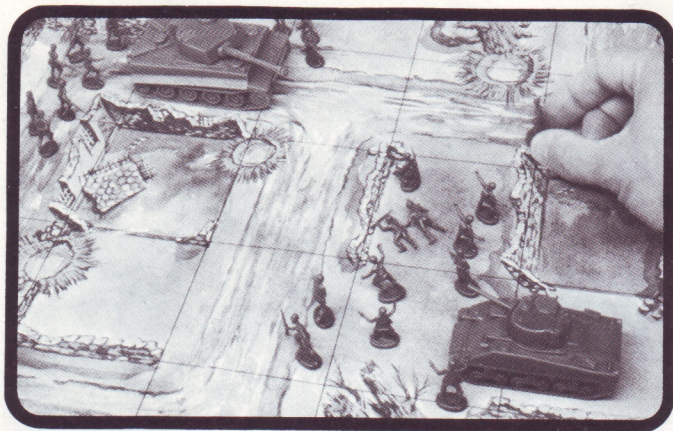


The 1/285-scale tanks and other armored fighting vehicles, mounted on squares of plastic, make excellent substitutes for cardboard playing pieces in many historical board games.

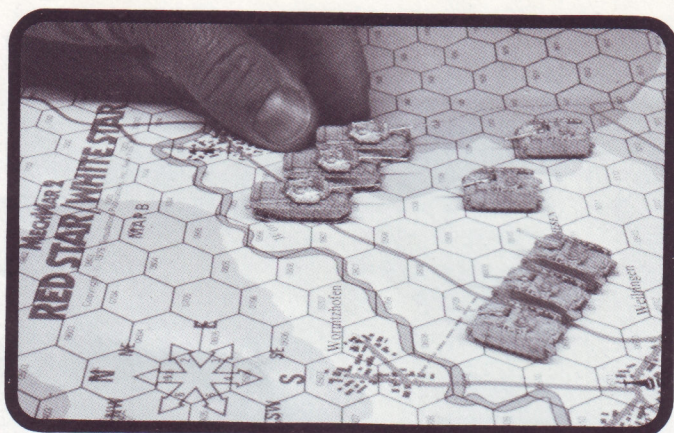


Early wargamers used spring-loaded guns like this one (it's still sold) in combination with hand-to-hand wargaming rules. Guns like these with matching figures can be used with most historical "paper" war game rules.





This "beginner's" game includes snap-together plastic tank models. Companion games include plastic infantry figures and additional game boards, which can be used to combine 2 or more games.



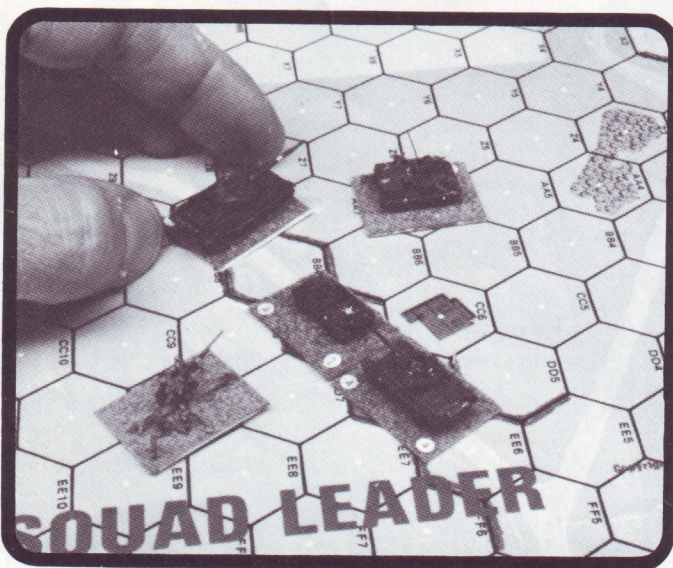
This new war game is an example of those set in the immediate future. "Modern" cast metal miniature tanks and other weapons like these can be used for more realism.



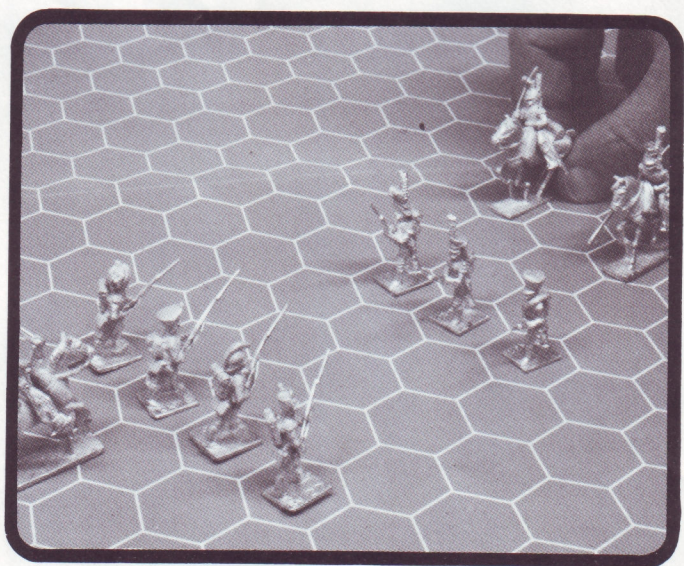
Shown here is a "board" game small enough to be stored in your pocket. It can be played in half an hour. Cast metal tanks, like these 1/285-scale models, can be used in place of the war game's cardboard playing pieces.



Napoleonic-era games like this one can be played with inexpensive plastic figures rather than cardboard playing pieces included with the game.



The war game action is more realistic to most of us if metal figures or vehicles are substituted for the cardboard playing pieces provided.

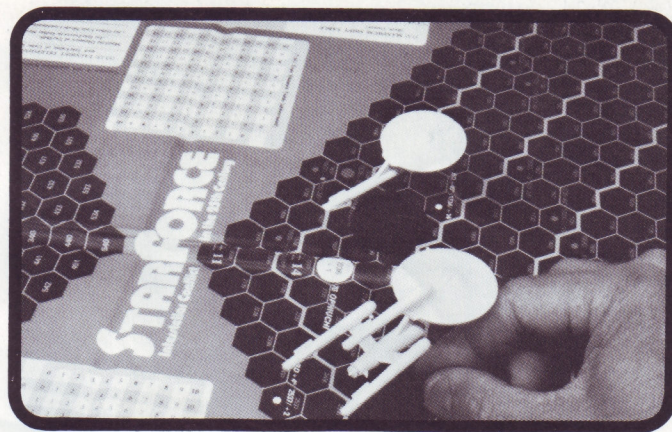


Conventional war game hexes are too small for 25mm figures like these Napoleonic-era metal miniatures. You can duplicate most of the board's terrain using larger hexes on colored hex paper.

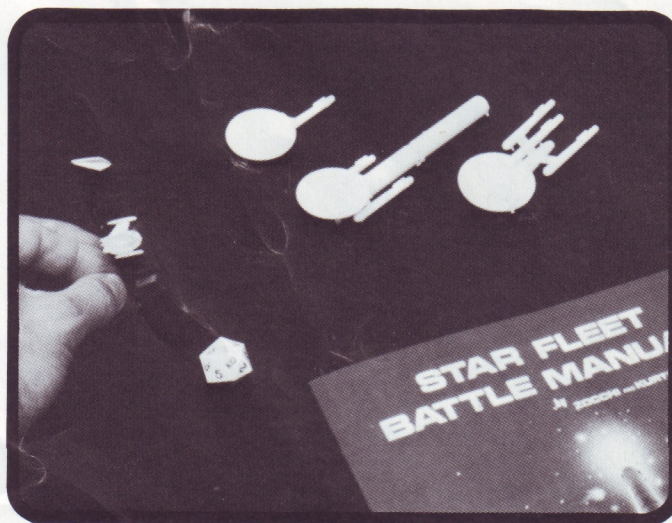




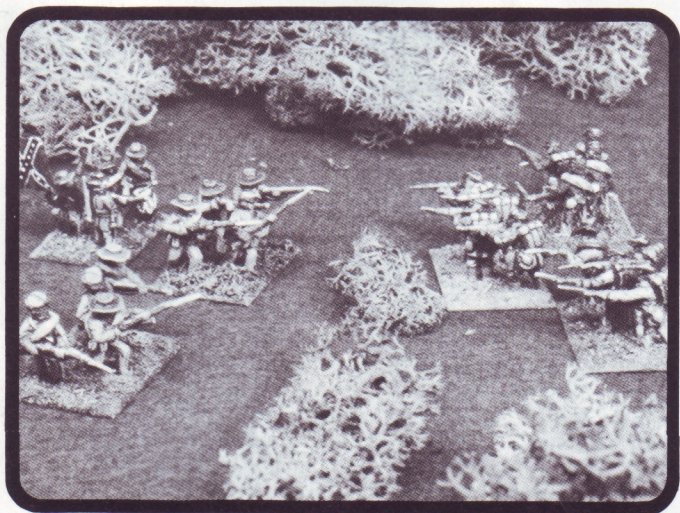
The most realistic war games are played on green felt fields with lichen moss bushes. HO-scale building kits also add realism. Mike Gilbert painted these 25mm Napoleonic-era miniatures.



These plastic spaceships are used to add reality to a board game of intergalactic combat in the 25th Century.



This "paper" game can be played with just a pencil and paper, but it will be much more realistic with the use of plastic spaceships and some black imitation velvet.



Two dozen of these 15mm miniatures, mounted four to a plastic base, only occupy an area the size of a tea cup on this "battlefield". Small clusters of figures can represent squads or platoons.



This fantasy war game has a board made of colorful, large (4 5/8") hexes that can be turned over for alternate terrain. They're large enough to allow the use of metal miniature playing pieces.





Use "paper" fantasy game rules with metal miniatures like these to make it a bit easier to imagine battles. Black imitation velvet, over blocks of wood for "hills", simulate caverns.



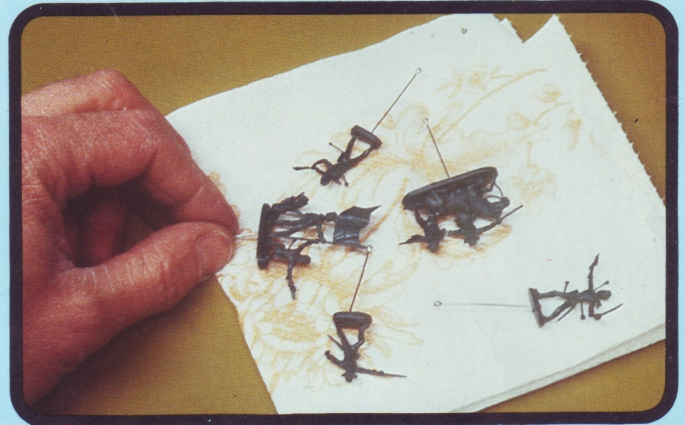
Painted metal miniatures can be used on "board" games with conventional small hexes, in place of the war game's card-board playing pieces.



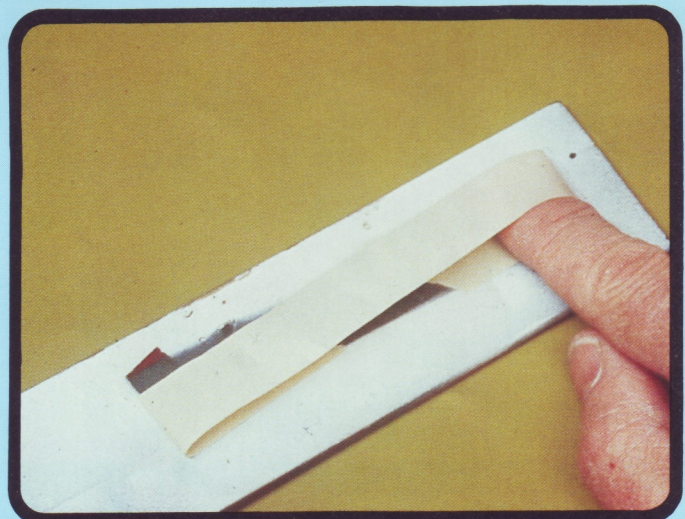
An incredible range of 22mm-high plastic figures makes fine miniatures for various types of war games. However, the flexible plastic does not hold paint without careful preparation. You can paint the figures as a whole group by leaving them attached to their plastic molding sprues, but most modelers prefer to paint them one at a time. Trim them from their molding sprues with a sharp hobby knife, so the bottom of each base or figure is perfectly flat.



Don't touch painted plastic figures with your hands from now on. Use straight pins or hat pins, pressed into the figures' bases, to hold them. Immerse them in boiling-hot vinegar and let soak for at least 12 hours to remove grease from the plastic & slightly etch (roughen) the surface. Do not leave figures in pot when heating the vinegar—the hot surface of the pot will melt the plastic figures.



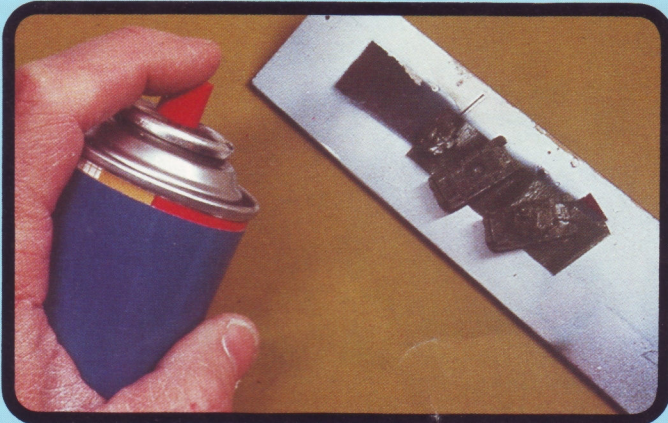
Lay figures on paper towels until dried in the air, for no more than a day. Or use compressed air from a filling station's air hose or compressor to blow them dry quickly.



Press the ends of a piece of masking tape down as shown, forming a loop of tape sticky side up. Push tape flat on a scrap of wood.

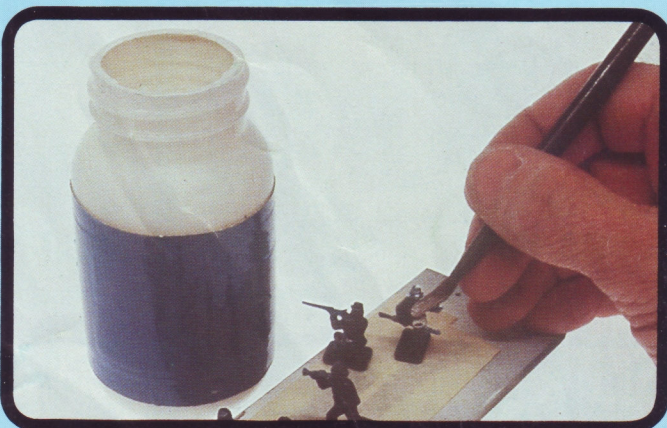


When spray painting, always hold spray can 9" to 18" from the work to avoid runs.



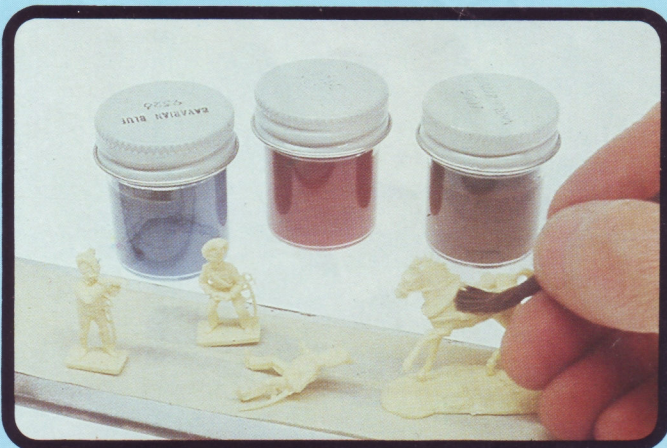
Cover one hand with an old sock before handling clean plastic figures. The sock also masks your hand from paint spray. Press bases of figures down on masking tape. Hold board with covered hand while you spray-paint figures with free hand. Use flat-finish skintone paint for a primer coat.

Cast metal miniatures can be painted with the same procedure used for plastic ones. A quick wash in **cool** vinegar removes grease. If you're painting tanks or other vehicles, a single coat of paint may be all you need. Select the proper color to suit vehicle type and era. Spray it on as for figures. You can also use brush-on paints, but it's difficult to reach all detail areas.



Or avoid the board and tape by leaving plastic figures on molding sprue. Hold sprue with covered hand while applying spray coat of primer.

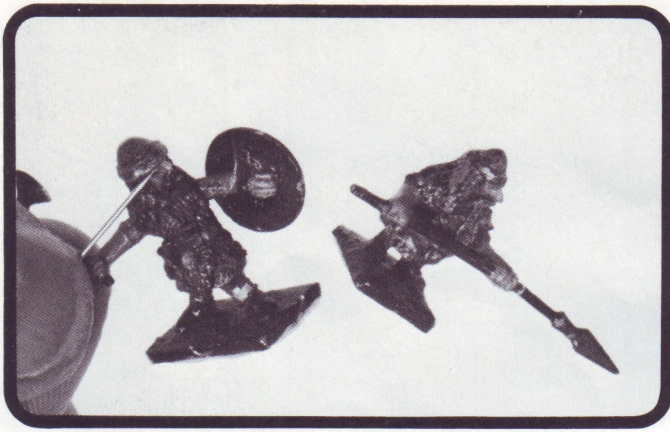
Some miniature brands have a special painting "system" using their water-base paints. Wash the figure in vinegar, let it dry, then brush on a single coat of primer. Let primer dry.



Many automobile lacquer or enamel-base primers work well on plastic figures, but you must test your choice on a scrap of plastic to be sure paint doesn't flake.

These water-base paints for military miniatures are "self-shading" in that they dry to a slightly lighter shade on the high points and a darker one in the "shadows". They duplicate effects that would take hours with conventional paints. The paints can be washed off the figure with boiling water.





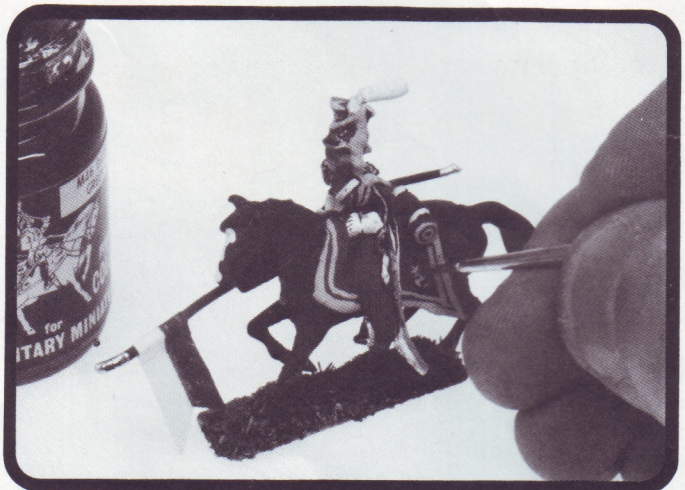
Fine-tipped No. 00 or 000 brushes are best for painting tiny details. For dots like eyes and buttons, use the tip of a straight pin to apply paint.



A "wash" of contrasting lighter or darker color is the detail that a miniature needs to accent the molded details. Dip entire figure in the "wash" described in the last step. Use a black or dark brown "wash" to accent shadows of light-colored figures, a light grey or beige wash to accent detail on a dark-colored model.



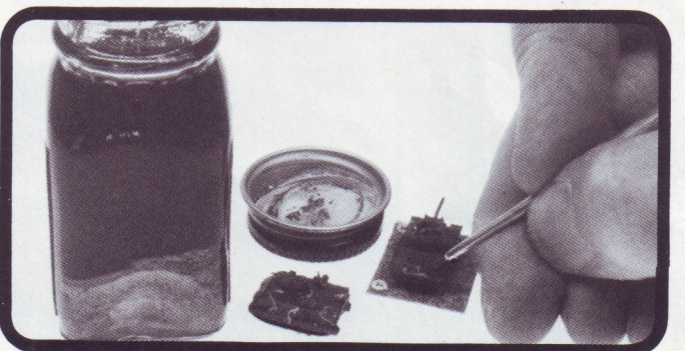
If you primer-painted the figures with either flat finish paint or an automotive primer, you can use any hobby paint for the figures. The pin in the base makes it much easier to hold figure, either with free hand or a clothespin "stand". This way you can paint all around figure. Start with lightest colors, then apply darker clothes, boots and other details.



There's only one way to apply stripes and other details like these: use a fine-tipped brush and a whole lot of patience. Mike Gilbert painted these 25mm Napoleonic-era figures. It takes some planning to produce results of this quality. Remember to apply most lighter-colored paints before darker colors. Quick-drying "flat" or matte finish model paints dry almost as fast as you apply them, so you can finish a figure like this in a day.

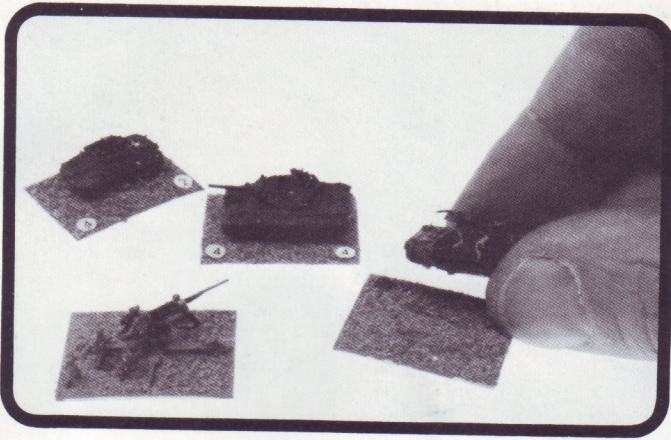


You can "shade" a light color with a "wash" of 9 parts alcohol (or paint thinner) to 1 part ink (or paint), accenting shadows of figure. It's much quicker than trying to mix shades of paint for highlights & shadows. Or use a light gray or beige "wash" to accent details of darker-colored areas.

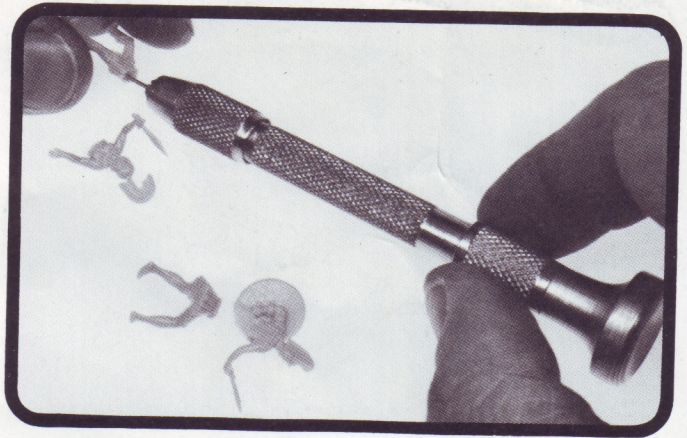


The realism of tanks and other armored fighting vehicles will be greatly improved with touches of gun metal or silver accenting wheels & other details.





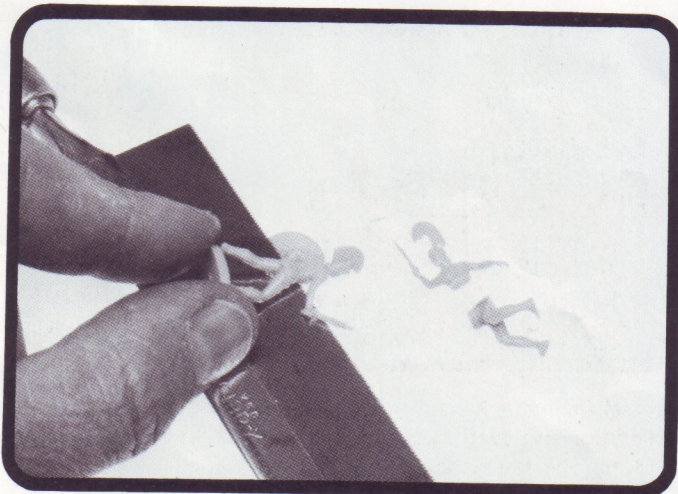
Most wargamers find it easier to maneuver figures and vehicles if they are mounted on cardboard or plastic bases. Hobby shops sell sheet plastic that can be cut into standard-size squares somewhat smaller than the hexes on your game board. A vehicle marking system appears on this base as numbers in circles. You can also duplicate numbers on the cardboard playing pieces.



If you can't find the exact figure you want, you can probably make it. We wanted horse-mounted Turkish or Bulgar archers and lancers for an "ancient" war game. The only ones we could find at the time were standing archers and lancers. The solution was simple: cut bodies from standing figures and attach them to mounted figures from a similar time period. Cut bodies at torso with a razor saw, so torsos and legs can be interchanged. Glue or epoxy alone is not strong enough to hold the plastic used for these figures. Use a "pin vise" (sold in most hobby stores) with a pin-size drill to drill a hole through torso, a matching hole through legs. Cut a straight pin in half with diagonal cutters and insert in drilled holes, to hold torso and legs together. A drop of 5-minute epoxy helps secure joint. The "mounted" archer or lancer can now be painted. Figures by Rocky Russo.



White glue is applied to base of figure or vehicle. Press miniature into glue and sprinkle on dyed ground sawdust or ground foam rubber sold in model railroad shops. Some modelers prefer to apply sawdust or foam first, so figure appears to be standing **on** rather than **in** the terrain.







HPH 4

# How to get started in: **WARGAMING**

The small world of big adventures  
in models